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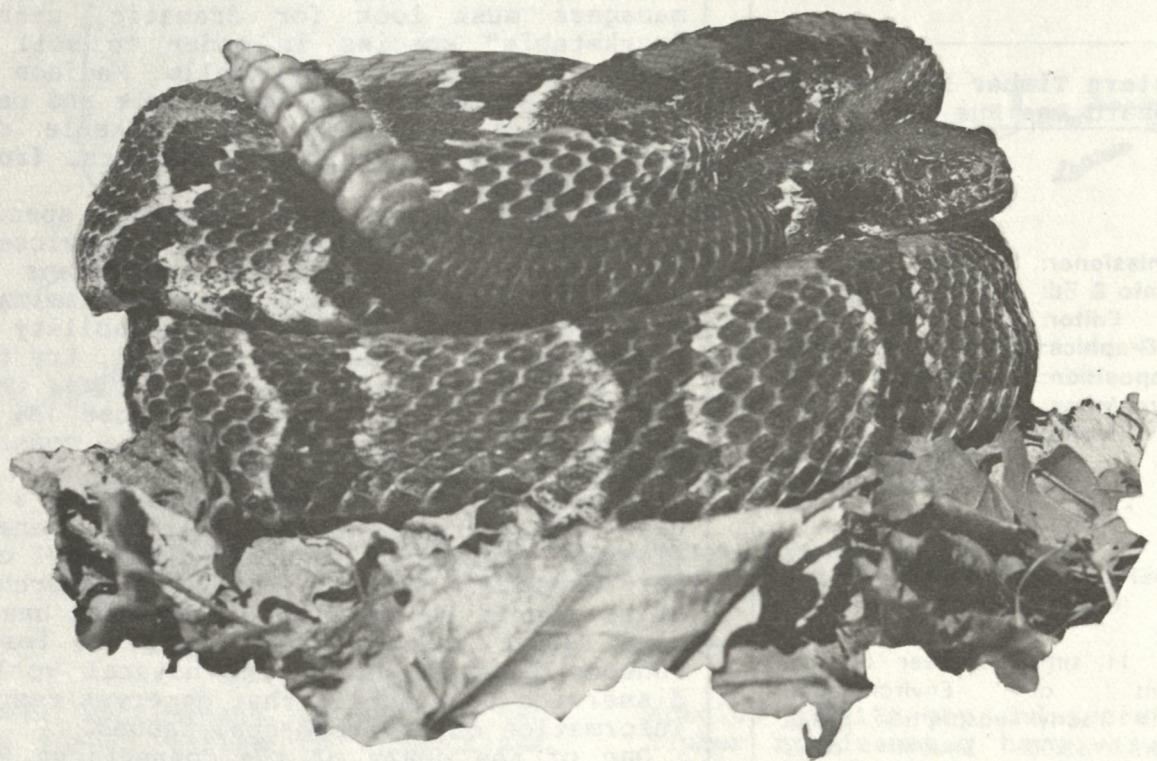


Citizens Bulletin

Volume 13 Number 2 October 1985 \$5/yr.

The Connecticut Department of Environmental Protection

The Unloved Rattler



An Environmental Dilemma

Citizens' Bulletin

October 1985

Volume 13, Number 2 \$5/year

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Eastern Timber Rattlesnake
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The Wider View

All Creatures, Pleasant and Unpleasant

By Rita Maroncelli,
DEP Wildlife Biologist

"Wildlife" means and includes all species of invertebrates, fish, amphibians, reptiles, birds, and mammals which are *ferae naturae*, or wild by nature." With this definition, the general statutes of Connecticut outlines the scope of the Connecticut Wildlife Bureau's responsibility. Federal legislation defines wildlife in similar terms. There is no exception in either definition for those species which are ugly, malodorous, slimy, poisonous, or anything else unpleasant. Yet, the lack of attention paid to these "lesser" species by many wildlife managers indicates that there are indeed outcasts in the animal world.

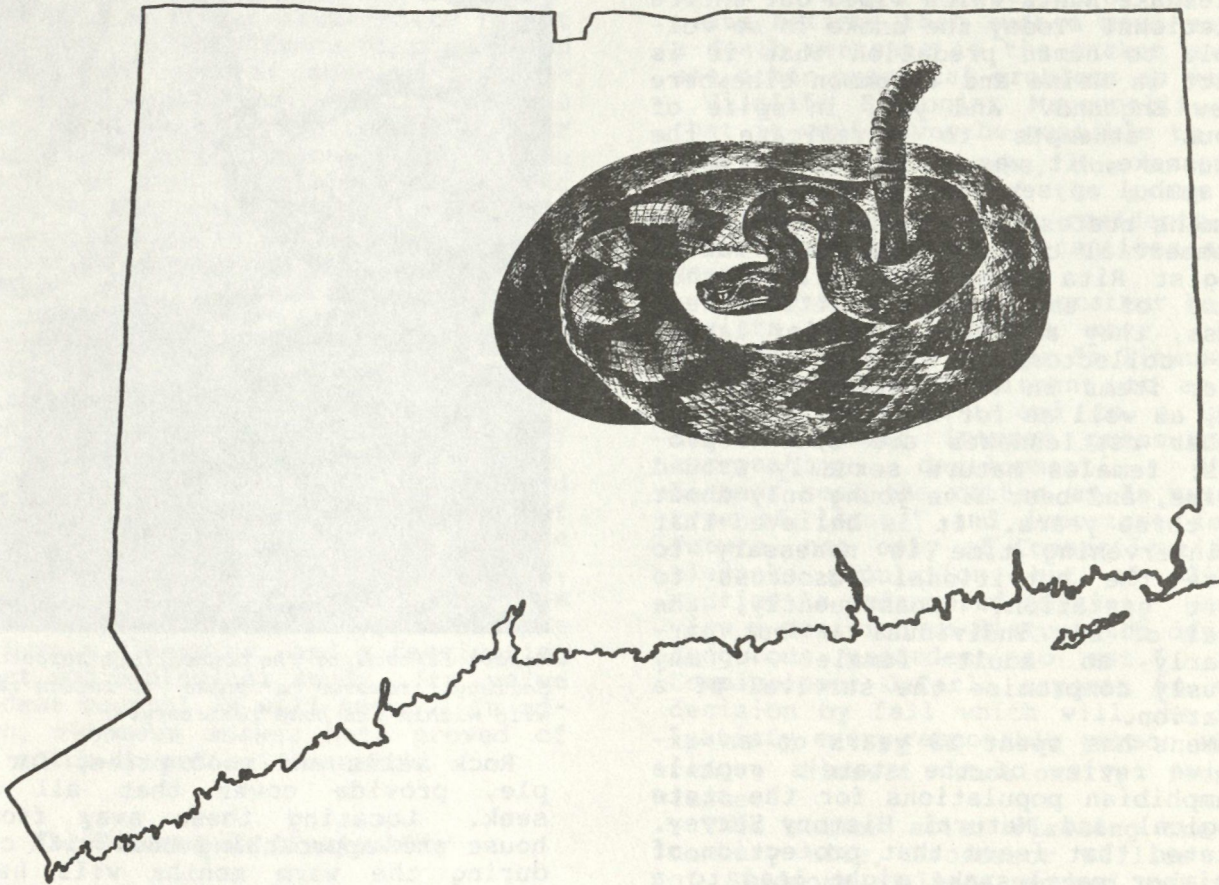
Research requires funding. The availability of funding is greatly influenced by public opinion and, in fact, most people do not care to see money spent on "unpleasant" animals. Wildlife managers must look for dramatic, attractive, "marketable" species in order to sell a program. So long, biology, hello, Madison Avenue. Raptors, primarily the bald eagle and peregrine falcon, are crowd-pleasing, bankable species. Species such as snakes, salamanders, frogs, and toads are not.

Ironically, many less glamorous species may have great value as early warning devices in our environment. Reptiles and amphibians show a rapid response to environmental contaminants and they do not have the physical capability to make a quick exit. Birds can, and will, try to avoid a problem by flying away. It is clear that lesser species serve a useful purpose in an ecosystem and that our attention to conservation should be equitably distributed.

It is true that the over-emphasis of a particular "glamor" species may indirectly benefit the "lesser" species by increasing the pool of funds for research. Ideally, however, research priorities should be assigned to species based upon need rather than marketability. To foster erroneous impressions of the natural world is a disservice to a public that deserves responsible information on environmental issues.

One of the goals of the Connecticut Wildlife Bureau's Non-game Program is to bridge that information gap. Education programs, pamphlets, and films are part of the effort to promote comprehensive wildlife management and to keep the citizens of Connecticut informed. It is the hope of DEP's Wildlife Bureau that the programs we have to offer will allay some fears and broaden the public's perception of the natural world.

The Glastonbury Rattlers



A touchy environmental problem in a Connecticut suburb

Text and photos by Martha Kelly

The timber rattlesnake is one of two venomous snakes native to Connecticut and, in contrast to its more aggressive western or southern relatives, it is a shy, timid species. While encounters between rattlesnakes and humans occur infrequently, such encounters do tend to be psychologically intense and unsettling. The recommended response is a deliberate, prompt retreat. The snake is likely to do the same.

Such encounters are rare in Connecticut because of the limited range of the

species and its shy and secretive ways. Timber rattlesnakes have very specific habitat requirements, and urban development has eliminated many of their sites. Not surprisingly, humans have been their most serious predators. Today, rattlesnakes are found in only seven of Connecticut's 169 towns. Most inhabit the rural northwest corner of the state, with a few smaller populations in the Glastonbury-Portland area.

The proximity of the snakes to human populations has presented state offi-

cials with an ethical and practical dilemma; homeowners have asked the state to consider relocating entire populations of rattlesnakes.

Three Centuries of Depredation

According to Michael Klemens, a herpetologist with the American Museum of Natural History in New York City, farmers in Colonial times organized rattlesnake hunts which wiped out entire populations. Today the snake is so vulnerable to human predation that it is extinct in Maine and uncommon elsewhere in New England. And yet, in spite of serious attempts to eradicate the rattlesnake, it was chosen as an American symbol on several early flags.

Klemens states that the biggest threat is commercial collection. DEP Wildlife Biologist Rita Maroncelli stated that because of the timber rattlesnakes' shyness, they are easy prey for large-scale collectors. Rattlesnakes are popular items in the international pet trade, as well as for sideshow displays.

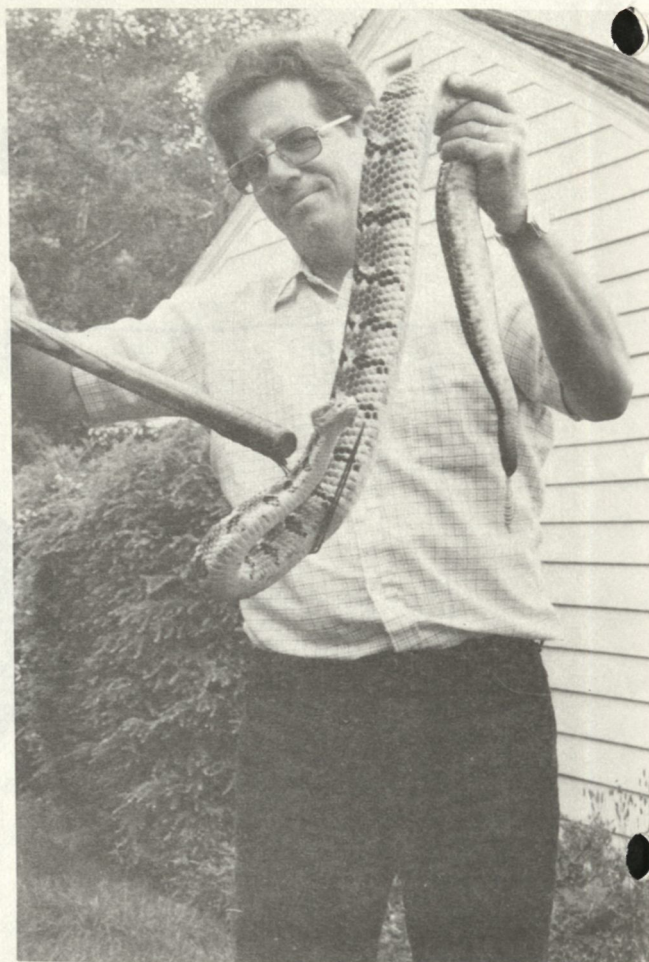
Timber rattlesnakes are slow reproducers; females mature sexually around age five, and bear live young only about every three years. It is believed that the intervening time is necessary to acquire the nutritional resources to support gestation. Consequently, the removal of any individual -- but particularly an adult female -- may seriously compromise the survival of a population.

Klemens has spent 13 years on an exhaustive review of the state's reptile and amphibian populations for the state Geological and Natural History Survey. He stated that fears that protection of the timber rattlesnake might lead to a population boom were "absurd." The most that can be hoped for, says Klemens, "is that existing populations are sustained."

The Role of the DEP

DEP Biologist Maroncelli agrees with Klemens in regard to rattlesnake populations. Data collected for the state indicate "severe population decline due to habitat loss and over-collection."

Each of the state's eight wildlife biologists is employed in a specialized field. Maroncelli's responsibilities include some 200 species of non-game animals. Her duties also involve responding to "nuisance" calls by assisting callers in wildlife identification and providing advice on discouraging or removing the "nuisance."



Robert Fritsch, of the Connecticut Herpetological Society, removes a snake to return it to the wild within its home territory.

Rock walls and wood piles, for example, provide cover that all snakes seek. Locating these away from the house and approaching them with caution during the warm months will help to reduce surprise encounters. Maroncelli reports that most snake calls are cases of mistaken identity, while only a few are confirmed as poisonous.

Members of the Connecticut Herpetological Society have been generous in responding to snake calls. Robert Fritsch, a Wethersfield police officer and chairman of the conservation committee of the Connecticut Herpetological Society, has responded personally to most of the calls he receives, removing the snake and returning it to the wild within its home territory.

Maroncelli commends the members of the Herpetological Society for their professionalism, and for being "highly dependable, cooperative, and generous in sharing knowledge."

Protecting a Declining Species

The timber rattlesnake has experienced

similar decline in many surrounding states. In New York, Herpetologist William Brown estimates that even those populations which have escaped extinction have been reduced as much as 75 percent. This has led New York to designate the timber rattlesnake a threatened species.

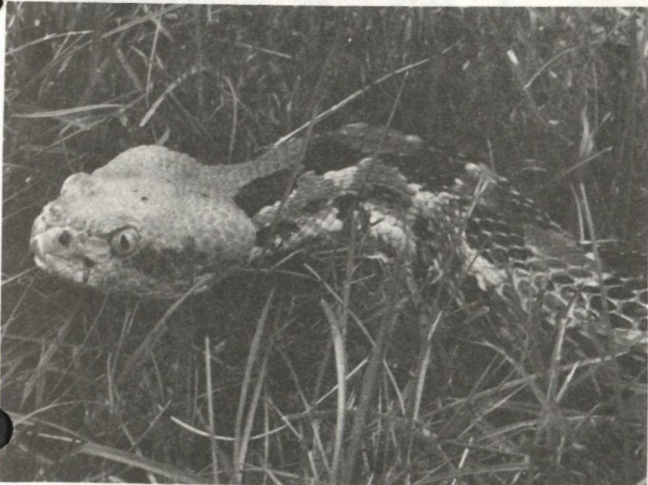
At this time, Connecticut legislation protecting endangered and threatened species covers only those plants and animals which are also federally protected. Only six species are so designated, and the timber rattlesnake is not one of them. The evidence of population decline among several species of reptiles and amphibians, including the timber rattlesnake, resulted this year in protective regulations. With the exception of past legislation protecting the bog turtle, this legislation is the first of its kind in Connecticut.

Regulation prohibits taking the rattlesnake, and violators may be fined \$100. An exception was made in that homeowners are allowed to dispose of snakes found on their own property. Of the states which do protect the rattlesnake, Connecticut is the only state to make such an exception.

Klemens acknowledges that it is hard to muster support for the protection of potentially dangerous species, despite the snake's many beneficial qualities. Its supporters view the rattlesnake as a beautiful, graceful creature, an example of nature's diversity, and a fascinating subject for biological study. Its value in rodent control is well known. In addition, venomous snakes have proved of great value in medical research.

The Dilemma in Glastonbury

In 1984, when regulatory hearings were



Entire populations of rattlesnakes have been systematically wiped out since Colonial times.

conducted, several residents of Glastonbury expressed concern for the safety of their families and household animals. They asked the state to consider relocating a nearby den of rattlesnakes. One homeowner was concerned enough to offer to finance the operation.

DEP Deputy Commissioner Dennis DeCarli and other state officials met with the homeowners and agreed to explore the subject with herpetologists. Early reports have not been encouraging; scientists believe that such a move would be a death sentence to the snakes and they see other practical problems as well.

Wildlife Biologist Maroncelli doubts that it would ever be possible to remove every individual snake, due to the decentralized nature of the snake dens. So, she suggests, area residents would always have to take precautions as they do now.

Both professional and amateur herpetologists oppose such a move. Robert Fritsch calls the matter "a litmus test" of the state's commitment to an environmental viewpoint and to a species that is under intense pressure from encroaching development. Michael Klemens sees the matter as "a watershed type of issue," and important for the future, not only of Connecticut's rattlesnake population, but of all Connecticut's endangered species. He would view a decision to disturb the den as "a dangerous precedent to set." Deputy Commissioner DeCarli expects to have a decision by fall which will, he hopes, "satisfy every reasonable person who can remove himself emotionally from the issue."

This summer after visiting the Glastonbury site, Professor William Brown of Skidmore College agreed to present this situation to the Conservation Committee of the Society for the Study of Amphibians and Reptiles (SSAR) for assessment. This national organization is, according to Rita Maroncelli, the most reputable and prestigious society of herpetologists in existence.

Viewpoints from "Rattlesnake Alley"

Even within the suburban area known as "Rattlesnake Alley," many differing viewpoints are to be found. Some residents feel strongly that the snakes don't make good neighbors. Richard Furst reports that, although he has never seen a rattler on his own property, he has seen five or six since 1979 and he is frightened for the safety of his three-year-old son. "I'm really torn about this issue, but my son and my

family come first."

Others, including mothers who have raised families in the same neighborhood feel differently about the degree of risk the snakes present. Several have spoken of the need for more education regarding the rattlers' habits and on precautions which may be taken. Mrs. Helga Dickau exemplifies this viewpoint. Her sons were five and seven when she moved into the neighborhood. Believing the "people should learn to live with what's around them," she taught her children to be watchful and what steps to take if bitten.

Rita Maroncelli is philosophical about the outcome of the public controversy, observing that she expects there to be no winners in this situation; neither

the snakes' friends nor their foes are likely to be pleased. Deputy Commissioner Dennis DeCarli hopes to have a decision soon on the issue, but observes that on a difficult issue like this, "If nobody is happy, you've probably done it right."

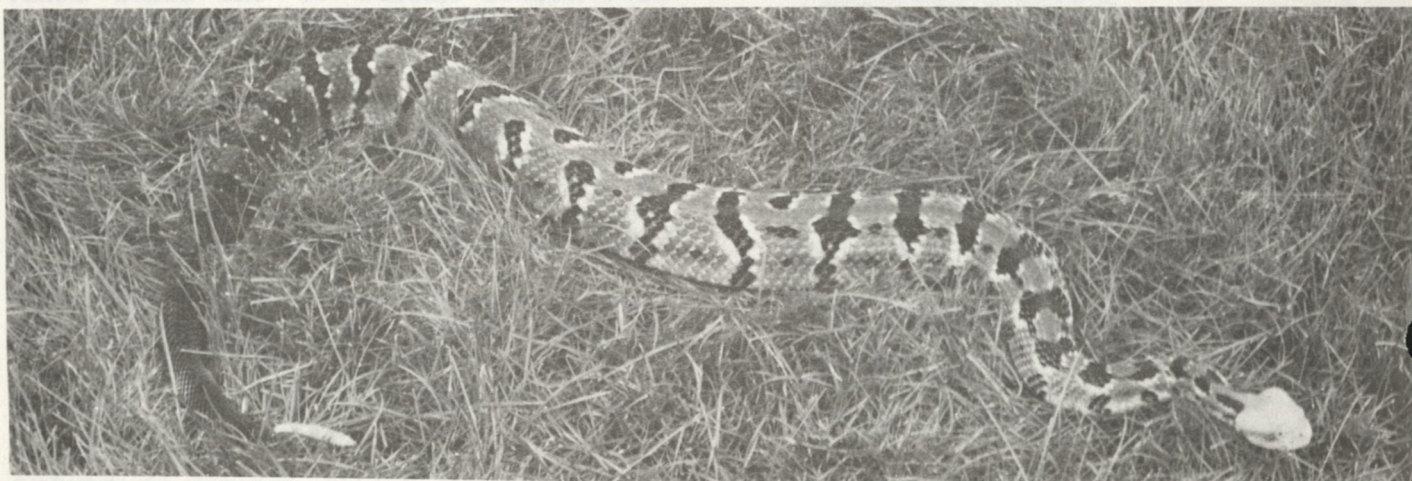
For help identifying snakes:

DEP Sessions Woods Wildlife Management Area, Burlington: 584-9830.

Robert Fritsch, Wethersfield: 563-9736.

Connecticut Herpetological Society: 693-4131.

DEP Wildlife Bureau, Hartford: 566-4683.



In Glastonbury, the DEP must resolve a dual responsibility to the people and to the wildlife of the state.

The Report from SSAR

In response to a request from Deputy Commissioner Dennis DeCarli, Conservation and Preservation Division, the Society for the Study of Amphibians and Reptiles (SSAR) addressed the issue of humans living in a settled suburban region near Glastonbury where occasional contact with individual timber rattlesnakes occurs. A report, which represented an official position of the board of directors of that body, was submitted on August 12, 1985. The report drew the following

conclusions:

"In summary, given the information above, and based on our considered professional judgement as herpetologists actively engaged in the study and conservation of reptiles and amphibians, we reach the following conclusions: (1) total eradication is not warranted (nor legal) and relocation is not feasible on both biological and practical grounds; (2) problems between this species and humans could be best approached through the

removal of offending snakes on an individual basis.

"Finally, it is appropriate to note that numerous cases of human conflicts with wildlife have occurred and these often have involved animals considerably more dangerous than timber rattlesnakes (e.g., grizzly bears). Investing in an aggressive public information and education program to alleviate the problem in the long run is helpful in such cases."



The Northern Copperhead: Neither the copperhead nor the timber rattlesnake is aggressive, and neither will attack or pursue humans if given the chance to retreat. (Photos: L. L. Rue III)

The Venomous Snakes of Connecticut

General

Of the 14 species of snakes native to Connecticut, only two are poisonous: the timber rattlesnake (*Crotalus horridus*) and the northern copperhead (*Agkistrodon contortrix*).

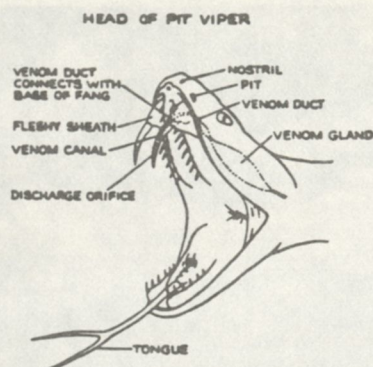
Both of these snakes belong to the "pit viper" family, so named because of the facial pits located on each side of the snake's head, between the eye and

nostril. These pits contain nerve endings sensitive to radiant heat and help the snake detect warm-blooded prey in the darkness. Non-poisonous snakes do not have these heat-sensitive pits.

Pit vipers are generally heavy-bodied with narrow necks, wide, arrow-shaped heads, and vertically-elliptical (catlike) pupils. Non-poisonous snakes in Connecticut have oval

pupils.

Two well-developed venom-conducting fangs are located in the front of the mouth. These are shed periodically and replaced. Each fang is connected to a venom gland, one on either side of the face. Venom is pumped through the fang, channelled by muscular action. It should be stressed that the primary purpose of this venom is to immobilize prey and to aid



in digestion. Venom is not always released during the bite. Non-poisonous snakes do not have specialized fangs or venom glands.

It is important to remember that neither the timber rattler nor the northern copperhead is aggressive and neither will pursue or attack humans if given a chance to retreat.

Identification

Unlike most rattlesnakes, the timber rattlesnake has two color phases: a yellow phase and a black phase. Identifying characteristics include: 1) the yellow or black, blunt, and broad-shaped head which is unmarked; 2) the dark brown or black chevron-shaped cross-bands with bright, thin, yellow borders; 3) the dark, unmarked tail; and 4) the rattle on the tip of the tail. Average length is three to 3.5 feet, though some rattlers reach six feet in length.

The head of the copperhead is copper in color, with a thin line on each side of the face separating the richer copper color of the top from the lighter color of the sides. On the rest of the body is a series of dark brown to reddish hour-glass shaped cross-bands which are narrow in the middle and broad on the sides. The background color is beige

to tan. Average length is two to three feet.

Habitat and Range in Connecticut

The timber rattlesnake prefers remote, mountainous terrain with steep ledges and rock slides. Many different types of deciduous trees with occasional stands of conifers are present. Mountain laurel and blueberry are characteristic plants of the den area. A water supply is always nearby. In Connecticut, the timber rattlesnake's range is intermittent, with only a small number of towns sustaining significant rattlesnake populations.

The copperhead prefers trap-rock ledges with extensive rock slides. This snake favors moist, damp habitats with many den sites located on the edges of swamps, streams, and rivers. The rock slides are usually interspersed with deciduous trees, Virginia creeper, poison ivy, and dead tree debris. Densely-forested areas which are cool and moist are usually nearby. In Connecticut, the copperhead seems to be more abundant and more widely distributed than the rattlesnake.

Both species use the deep crevices and fissures of their den sites to hibernate. The den site usually faces south, southeast, or southwest to take advantage of the warm sunlight. It is uncommon to find both of these species in the same den in Connecticut.

Activity

Both the copperhead and rattlesnake emerge from their dens in mid-April to bask on the ledges during the day. In May and June, most of the snakes at the den disperse to lowland

feeding grounds -- stone walls, pasture and crop fields, and stream and river bank areas. During the summer, the snakes become mostly nocturnal to avoid the intense heat of the day. In September and October, the snakes gradually return to their den sites and resume the daytime basking habit. Both species probably travel less than two miles from the den during this seasonal cycle.

Reproduction

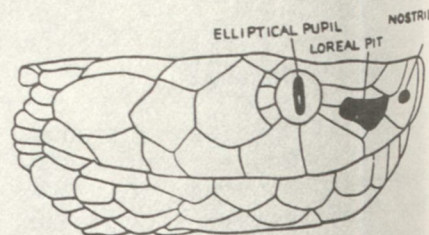
Mating may occur anytime during the snake's active season, with births usually taking place from August to late September. The young are born alive, fully armed with fangs and venom; they receive no maternal care.

A female timber rattlesnake gives birth to an average of six to 14 young which are eight to 10 inches long. A female copperhead gives birth to three to 10 young which are seven to nine inches long.

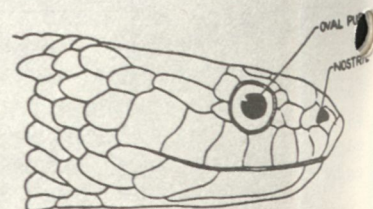
Food Habits

Both the rattlesnake and copperhead feed on a variety of prey. The rattle-

VENOMOUS



NON-VENOMOUS



snake has a more limited diet, feeding almost entirely on warm-blooded rodents and birds. The copperhead will, in addition, take certain insects, reptiles, and amphibians. They secure their prey by lying in a suitable spot and waiting for a small animal to pass by. Typical hunting activity consists of lying motionless for long periods with intervals of careful and intensive prowling. Since snakes are cold-blooded, their metabolism does not necessitate a daily feeding.

Defense

Both species have similar defense mechanisms: 1) the snake lies motionless using its protective coloring to avoid detection; 2) if detected, the snake warns the intruder by coiling and flattening or inflating the body in order to appear larger, vibrating the tail, and then retreating; 3) if actually seized or cor-

nered, the snake sprays musk from a vent in its tail to discourage the enemy, and finally strikes and bites. The venom of poisonous snakes is primarily used to obtain food; its use as a defensive weapon is secondary. Most authorities believe that more people die each year, nationwide, from bee stings or lightning than from poisonous snake bites.

Status

Both the timber rattlesnake and the northern copperhead are unique species and are important parts of Connecticut's natural history. Many experts agree that both species may be in danger due to their limited range here and to indiscriminate killing and collecting. Reports of poisonous snake sightings and inquiries for further information should be directed to: New England Herpetological Associates, P.O. Box 191, Pleasant

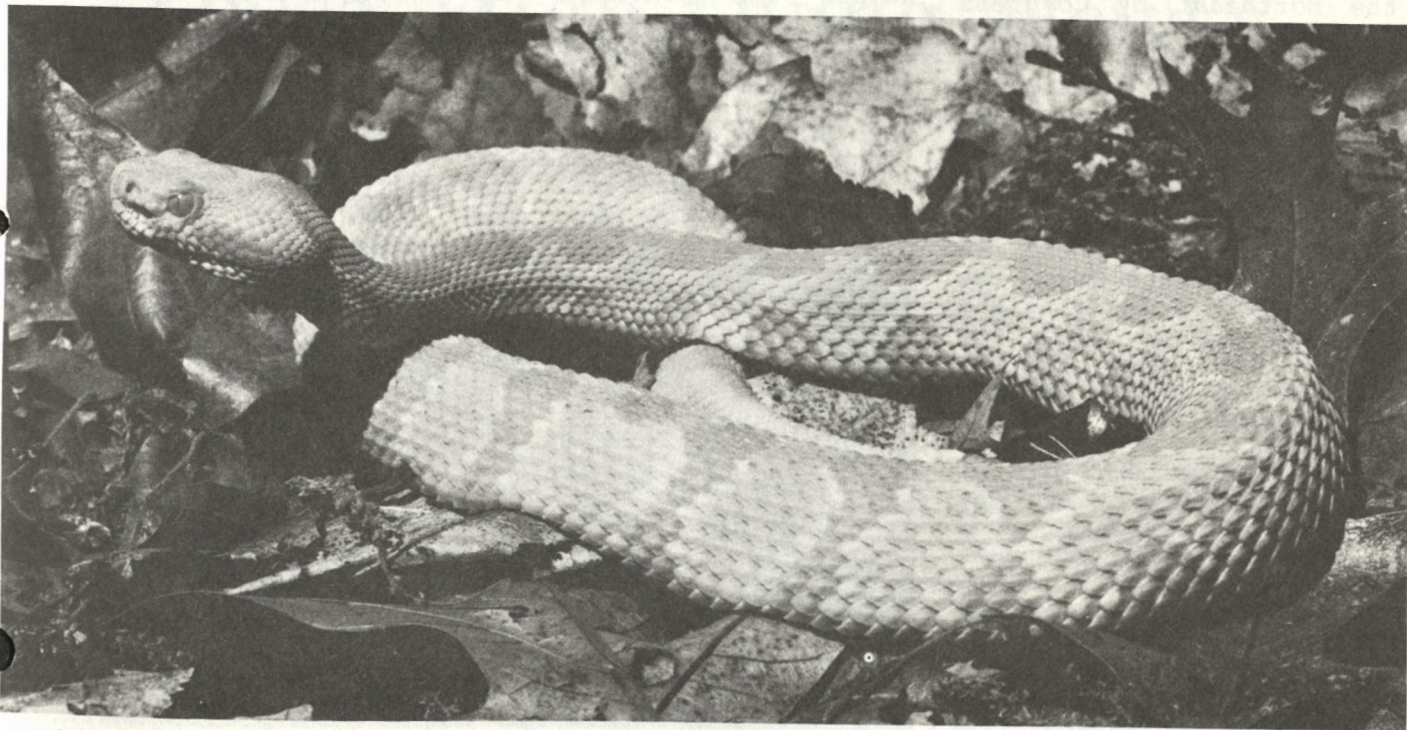
Valley, CT 06063; (203) 693-4131.

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Conan, R., 1975. A Field Guide to the Reptiles and Amphibians of Eastern and Central North America. Houghton Mifflin Co., Boston MA.

Peterson, R. "Connecticut's Venomous Snakes -- Timber Rattlesnake and Northern Copperhead." Conn. DEP Nat. Res. Cen. Bull. No. 103.

The Technical Assistance Information Series is 75 percent funded by Federal Aid to Wildlife Restoration -- the Pittman-Robertson (P-R) Program. The P-R Program provides funding through an excise tax on the sale of sporting firearms, ammunition, and archery equipment. The remaining 25 percent of the funding is matched by the Connecticut Wildlife Bureau.



Albino Timber Rattlesnake: Many experts believe that both the rattlesnake and copperhead may be in danger due to limited range and indiscriminate killing.

Coastal Management Program

Falkner Island: a new wildlife refuge

By Diane Giampa
Sr. Environmental Analyst

This past summer, Falkner Island off the coast of Guilford was designated as the second of the four units that will make up the Connecticut Coastal National Wildlife Refuge. The first parcel to be so named was Chimon Island off the coast of Norwalk, which was purchased for \$1.4 million by the U.S. Fish and Wildlife Service from The Nature Conservancy in March of 1985. Also to be included in the Refuge are Sheffield Island, west of Chimon, and Milford Point.

The Connecticut Coast National Wildlife Refuge is the first such unit in the National Wildlife Refuge System to be authorized in the Northeast by Congress in 10 years. The legislation designated four land areas for acquisition, totaling about 150 acres of wildlife habitat of importance to several species, such as terns, piping plovers, and heron.

At a ceremony held in Guilford in late July, the ownership of Falkner Island was transferred from the U.S. Coast Guard to the Fish and Wildlife Service of the U.S. Department of the Interior. The occasion marked the culmination of years of effort by The Nature Conservancy and environmentalists throughout the state.

Congressman Bruce Morrison, representing Connecticut's Third District, spoke at the ceremony about the importance of Falkner Island as a unique environmental phenomenon.

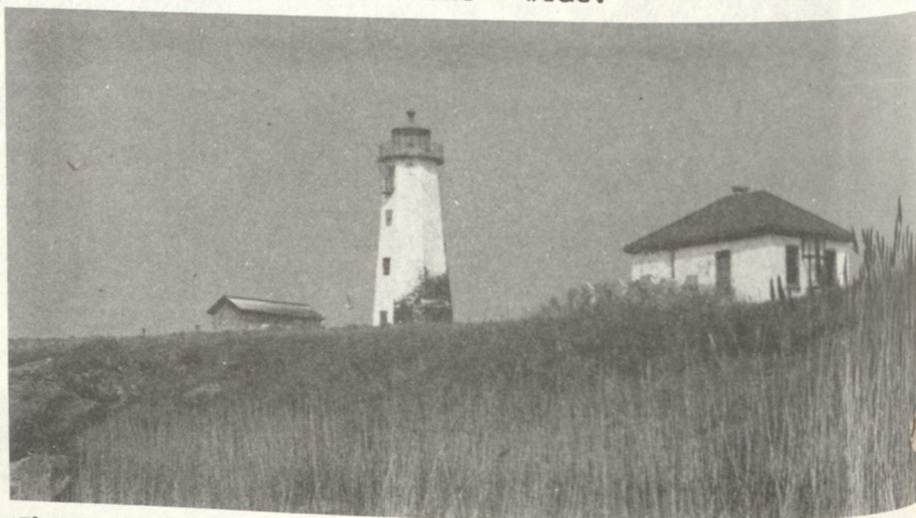
"Falkner is Connecticut's only significant habitat for roseate terns," said Morrison. "The state considers them a rare and endangered species. They are also being considered under the federal Endangered Species Act. In addition, the island includes 80 percent of the state's population of nesting common terns. These birds were abundant on the island until the late 19th century when human intrusion, competition with gulls for nesting territory, and a destructive species of red ant all imperiled the tern. Today, we can feel confident that under the knowledgeable care and protection of the Refuge, the terns and other species will be safeguarded for posterity."

Both the common and the roseate terns historically have nested along the northeastern Atlantic Coast where food, primarily small fish, was abundant and disturbance by predators and humans was minimal. The common tern nests southward into the Carolinas and in the Great Lakes region. The roseate tern's range in the United States is confined to a few colonies in southern New England, Long Island, and Florida. The

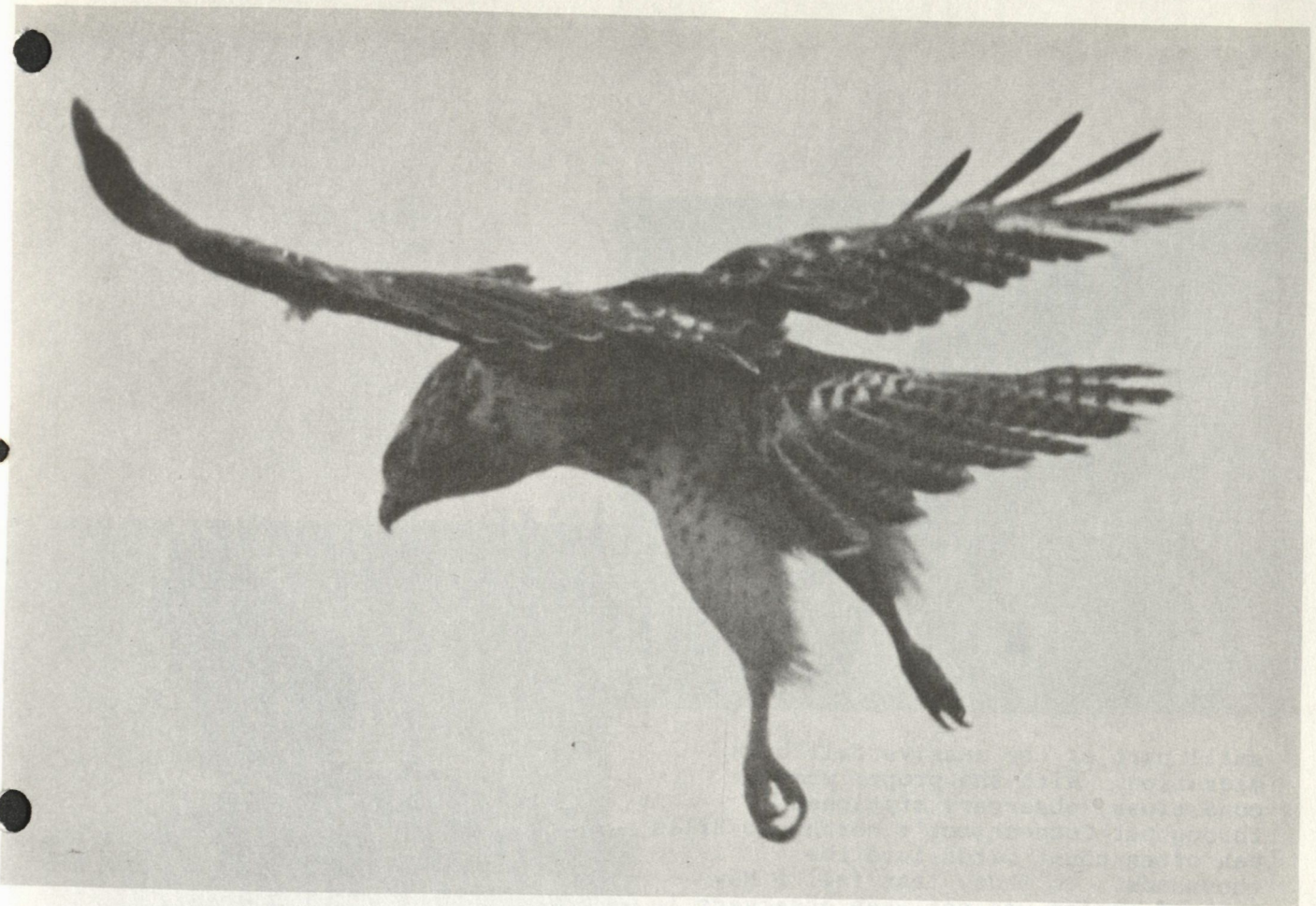
two species have similar feeding and nesting habits and are known for their long winter migrations into the Southern Hemisphere.

Nesting begins in late May and continues into July. Common terns nest in open sites, while roseates seek vegetative cover or openings under large rocks or debris, such as logs, boards, and old tires. Nearly all of the common terns and most of the roseates nest in the narrow band between high tide and the steep embankment on the spit at the northern end of Falkner Island; a few nest on the steep slopes or in open areas on the heavily vegetated top. Roseate nesting success has been improved on Falkner by a study team and volunteers, who place anchored boards and tires in suitable locations.

The Connecticut Coastal National Wildlife Refuge is among the newest of the 425 units of the National Wildlife Refuge System, the largest network of lands in the world managed for the benefit of wildlife. Established in 1903, the National Wildlife Refuge System now encompasses over 90 million acres nationwide.



The Coast Guard will continue to maintain the lighthouse on Falkner Island. (CAM Photo)



Those High-flying Hawks

By Jay Kaplan

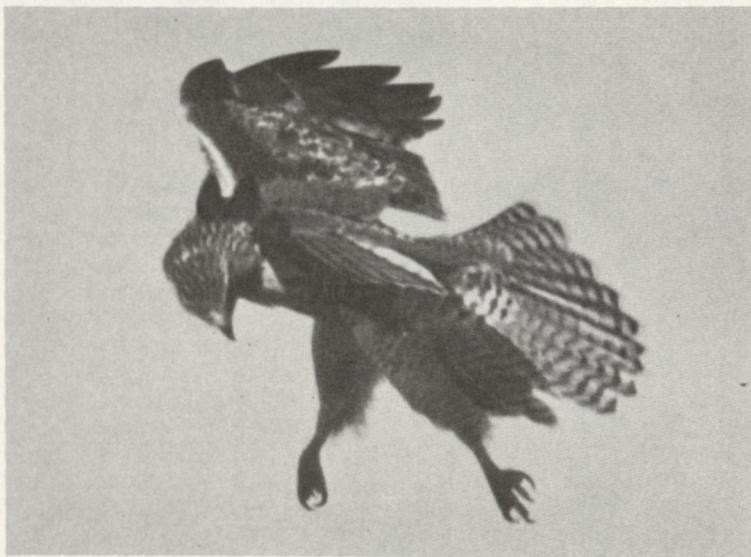
Director, Roaring Brook Nature Center

Photos by Leonard Lee Rue III

Hawks are impressive birds. Their ability to soar effortlessly in ever-widening circles with hardly a flap of the wing has inspired song and verse throughout history. Once killed by farmers, who suspected all hawks of killing chickens, they are today protected by law. Certainly more friend than foe, an adult red-tailed hawk, one of our native species, is known to consume several thousand mice in a year's time.

Along with the nocturnal owls, hawks are birds of prey. Their sharp talons, powerful hooked beaks, strong wings, and keen eyesight and hearing make them most efficient predators. Hawks may be found in a variety of habitats. Woodland hawks inhabit the deep woods, while the sharp-shinned hawks lurk near backyard bird feeders in winter, waiting to pick off an unwary chickadee.

The several hundred hawks that we might count on a single day are but a



small part of the massive fall hawk migration. With the proper weather conditions, observers stationed throughout Connecticut's northwest hills can often count birds into the thousands. In fact, last fall a New England record was set when observers in Massachusetts counted almost 20,000 hawks from one location in a single day. These hawks funnel down the mountain ridges of the northeast, adding to their numbers as they travel southward. By the time they reach South America, their final destination, thousands of birds may literally darken the sky. Riding warm air currents called thermals, these groups of hawks have been likened to a cauldron of boiling water; hence, the name "kettle" is used for this bubbling mass of birds.

Certain ridgetops in the northeast are well-known as places for hawk watching. Hawk Mountain in southeastern Pennsylvania, Cape May in southern New Jersey, and Hook Mountain in New York State are well-known areas, and thousands of hawk watchers flock to these areas each fall. In mid-September, broad-winged hawks are most common, and it is this species that accumulates in the large kettles. Ospreys and an occasional bald eagle may also be seen at this time.

Although you can see a few hawks almost anywhere, some of the better ridgetops include: Pine Mountain in East Hartland; Booth Hill in West Hartland; Bald Peak in Salisbury; and Mohawk



Mountain in Cornwall. The Hawk Migration Association of North America monitors the movements of hawks in various parts of the country. The data collected provides valuable insights into migratory patterns, effects of weather conditions upon migration, yearly numbers of birds, and other information. Joining one of their hawk watches will provide the beginner with a wealth of information about hawks.

By late October-early November, the larger red-tailed and red-shouldered hawks have begun to move. This is the best time of the year to see a gold eagle, rarely seen in Connecticut. Bald Peak in Salisbury, the northwest corner of Connecticut, is an excellent location from which to view these late-moving hawks. Be sure to dress warmly, as a good northwest wind, while good for hawks, can be uncomfortable for land-bound human beings.

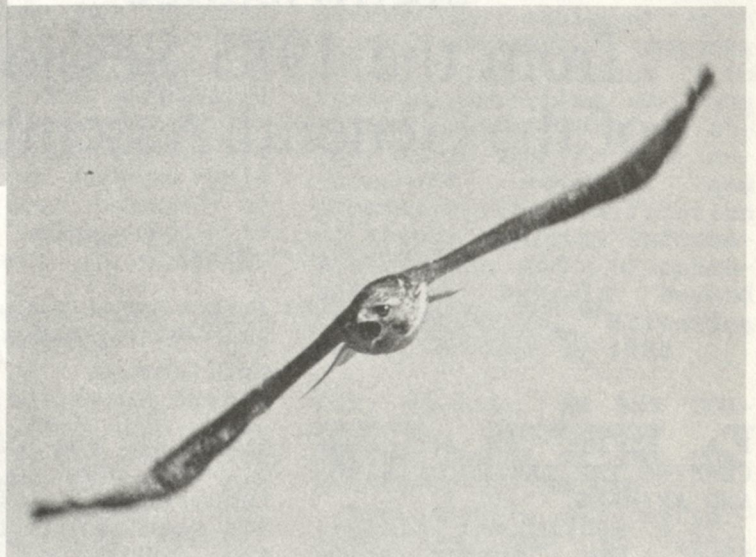
Hawk watching draws people from all walks of life. People who aren't

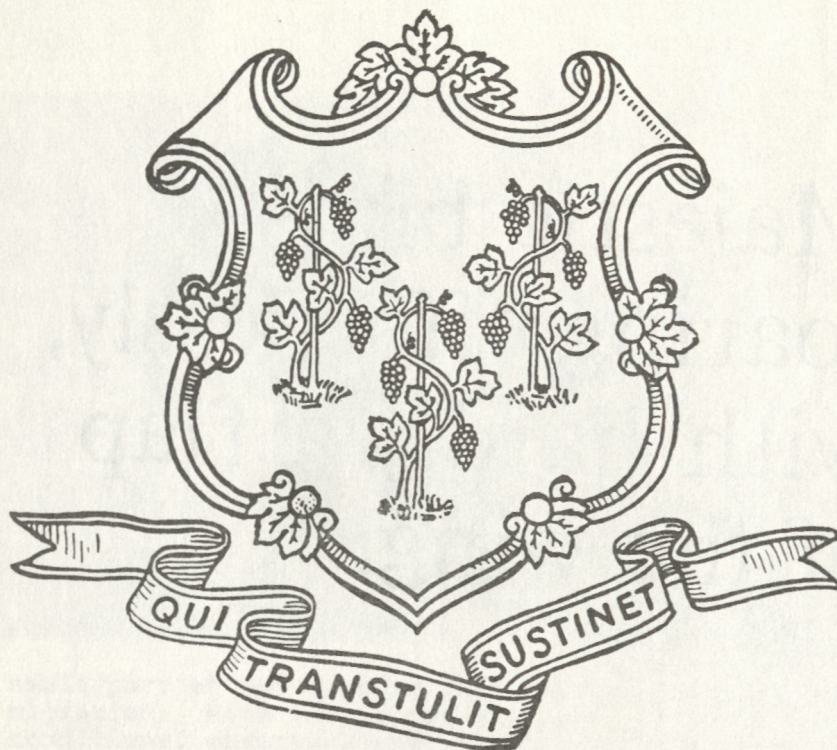
Majestic birds,
soaring effortlessly,
with hardly a flap
of the wing.



interested in the smaller birds are drawn to these majestic creatures. You don't need to be an expert to go hawk watching. Local hawk watches are led by knowledgeable guides who can aid with identification and provide information about the hawks. Or, you can grab a pair of binoculars, find your own edgetop, and spend a few hours looking for hawks on your own.

For further information on hawk watching, please contact Roaring Brook Nature Center, Canton, tel: 693-0263. ■





New Legislation

Acts of environmental significance from the 1985 Session of the General Assembly

- Second of a Series -

By Glen Gross, Principal Environmental Analyst
and Tess Gutowski, Sr. Environmental Analyst

P.A. 85-19: AN ACT CONCERNING THE TAKING OF BIRDS AND ANIMALS

This Public Act classifies the authorization

given to the commissioner of the DEP to establish requirements, procedures, and regulations for tagging and reporting birds and

animals taken by hunting and trapping. Regulation are to be established. Effective Date: October 1, 1985

P.A. 85-20: AN ACT CONCERNING DEER HUNTING

This Public Act eliminates the quota on the number of consent forms that may be issued by landowners for deer hunting, thereby allowing the landowners to determine the number of persons who may hunt on their land. In the past, landowners could only issue one consent form for the first 10 acres and one for each additional 20 acres. This Public Act does not affect the commissioner of the DEP's powers to limit the number of consent forms available for locations he designates as "regulated areas."

The Public Act also exempts archery turkey hunters from the requirement of wearing fluorescent orange clothing during the fall season. Effective Date: October 1, 1985

P.A. 85-22: AN ACT CONCERNING INSTRUCTION IN HANDLING AND USE OF HUNTING WEAPONS

This Public Act requires any person seeking a firearms hunting, archery hunting, or trapping license to show either a Conservation Education/Firearms Safety certificate of competency or a similar resident hunting or trapping license, valid within the last five years. The intent of this legislation is to eliminate the loophole whereby a Connecticut resident could avoid taking a Conservation Education/Firearms Safety Course by purchasing a non-resident hunting license in another state and then presenting it to obtain a resident hunting license. Effective Date: October 1, 1985

P.A. 85-27: AN ACT CONCERNING REPORTS MADE BY



COMMERCIAL FISHERMEN

Protects the confidentiality of commercial fisheries information voluntarily supplied at the request of the commissioner of the DEP. **Effective Date: April 8, 1985**

P.A. 85-53: AN ACT CONCERNING REPTILES AND AMPHIBIANS

This Public Act authorizes the commissioner of the DEP to regulate the taking and possession of reptiles and amphibians, makes the commissioner's specific authority consistent with general powers of wildlife management, and ensures the state's eligibility for federal grants. **Effective Date: October 1, 1985**

P.A. 85-57: AN ACT CONCERNING THE KILLING OF DOGS WORRYING OR PURSUING DEER

This Public Act allows canine control officers, conservation officers, or resident state policemen to kill, without criminal or civil liability, a dog in the act of worrying or pursuing a deer. The owner or keeper of the dog may be fined up to \$200 and imprisoned up to 60 days.

While this language was in the statutes revised in 1983, it was inadvertently omitted from the 1985 revision due to a computer error. **Effective Date: April 22, 1985**

P.A. 85-99: AN ACT CONCERNING THE SALE OF RACCOONS

This Public Act prohibits the breeding, propagation, or sale of raccoons and also prohibits the possession of raccoons purchased after October 1, 1985. With permission from the commissioner of the DEP, raccoons may be kept in zoos, nature centers, museums, laboratories, or research facilities maintained by a scientific or educational institution. The purpose of the Public Act is to protect public health and to minimize the risk of rabies. **Effective Date: October 1, 1985**

P.A. 85-100: AN ACT CONCERNING WILDLIFE LICENSES

This Public Act increases the fee for purchasing a duplicate hunting, trapping, or fishing license from one dollar to three dollars to cover the administrative cost of issuance. During the 1982 session, all resident sportsmen's license fees increased. The duplication fee, however, was not increased at the time.

This Public Act includes imported sika deer in the game breeder's licensing requirements and eliminates licensing requirements for ferrets. Since ferrets are not known to survive well in Connecticut outside of captivity, management of these animals is unnecessary.

This Public Act also requires persons in the business of controlling nuisance wildlife to obtain a license from the commissioner of the DEP. The license fee is \$50 and expires annually on December 31. The commissioner is required to adopt

regulations defining the scope and methods of control for issuance of a license. **Effective Date: May 6, 1985**

P.A. 85-104: AN ACT CONCERNING THREATENED AND ENDANGERED SPECIES

This Public Act provides a technical change which replaces existing language and definitions for "rare and endangered species." A "threatened species" is defined as "any species or subspecies which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range," and an "endangered species" is defined as "any species or subspecies which is in danger of extinction throughout all or a significant portion of its range." This change updates Connecticut law to be consistent with federal law which no longer uses the term "rare species," but includes the term "threatened species." **Effective Date: October 1, 1985**

P.A. 85-106: AN ACT CONCERNING BOATING SAFETY

This Public Act puts forth the state requirement for vessel lights, horns, and signals consistent with federal law; exempts certain boats from the requirement that inboard motors be equipped with flame arrestor; extends noise restrictions to vessels operating on Long Island Sound; restricts the use of sirens to law enforcement vessels; and prohibits the modification of vessel capacity information labels and the operation of vessels beyond their capacity. **Effective Date: October 1, 1985**

P.A. 85-116: AN ACT CONCERNING ENFORCEMENT OF ORDERS ISSUED BY THE COMMISSIONER OF THE DEP

This Public Act authorizes the DEP to adopt regulations within the

conservation and preservation division. The consent of the governing body of a municipality is required prior to the delegation of enforcement powers to a designated agency or employee. The designated employee would not have the authority to assess a civil penalty, and the commissioner would retain ultimate authority. The authority to deputize municipal agents for enforcement of environmental quality division programs has been in effect since 1983. **Effective Date: October 1, 1985**

P.A. 85-351: AN ACT CONCERNING HARASSMENT OF HUNTERS, TRAPPERS, OR FISHERMEN

This Public Act makes it a "Class C" misdemeanor to intentionally try to stop another person from lawfully taking or preparing to take wildlife. It would also be a "Class C" misdemeanor to harass such a person. A "Class C" misdemeanor is punishable by up to three months imprisonment and/or a fine of up to \$500. By law, "wildlife" means all species of invertebrates, fish, amphibians, reptiles, birds, and mammals which are wild by nature. **October 1, 1985**

P.A. 85-403: AN ACT CONCERNING HUNTING BY MINORS, REGULATION OF RAW FUR DEALERS, AND ISSUANCE OF SALMON, PHEASANT AND TURKEY TAGS AND STAMPS

This Public Act allows the DEP to examine raw fur dealers' premises and records, and authorizes it to adopt regulations concerning purchase and sale of raw furs. The regulations could establish procedures for recording and reporting raw fur transactions and tagging requirements for raw fur purchases and scales.

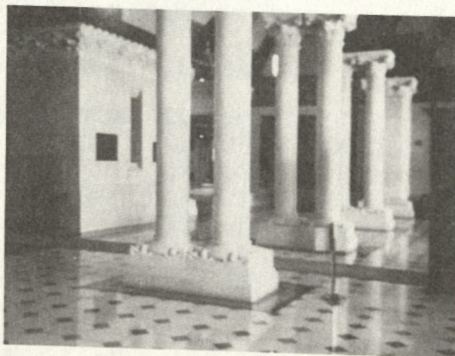
The Act also authorizes licensed junior hunters to purchase pheasant tags and have their own bag limits

on pheasants.

The Act allows town clerks to issue permits, tags, or stamps for salmon fishing and pheasant and turkey hunting. DEP is also authorized to adopt regulations setting the amount of the fee that town clerks will be able to retain for every permit, tag, or stamp issued, provided that the amount is at least 50 cents. **Effective Date: October 1, 1985, except the section allowing town clerks to issue permits, tags, and stamps which will be effective at a later date.**

P.A. 85-434: AN ACT CONCERNING THE TAKING OF LOBSTERS AND THE USE OF LOBSTER TRAWLS

This Public Act empowers the commissioner of the DEP



to adopt regulations for taking of lobsters. The regulations will be effective on January 1, 1986. Until the effective date, existing statutory requirements for taking of lobsters will apply.

The Act also extends until July 1, 1986, the 100-lobster trip limit for trawlers on waters of this state west of longitude 73 degrees and prohibits the night use of otter trawls in any of the waters of Long Island Sound lying west of a line drawn from the Stratford Shoal light to the easterly breakwater of the Housatonic River in Milford, from one hour after sunset to one hour before sunrise.

The Act requires the commissioner to report to the

general assembly on July 1, 1988, on the effect of these regulations on resources and fisheries. **Effective Date: June 26, 1985**

S.A. 85-54: AN ACT CONCERNING A STUDY OF THE ESTABLISHMENT OF A SEWERAGE INFRASTRUCTURE FINANCING MECHANISM AND FEASIBILITY STUDY FOR A PROGRAM TO TRAIN WOMEN IN THE CONSTRUCTION AND REHABILITATION OF SEWERAGE SYSTEMS

This Special Act directs the commissioner of the DEP to conduct a feasibility study on establishing a sewerage infrastructure financing mechanism for towns. The commissioner must submit his report to the governor and the general assembly by December 1, 1985.

This Special Act directs the labor commissioner to conduct a feasibility study for a program to train women in the construction and rehabilitation of sewerage systems. **Effective Date: July 1, 1985**

S.A. 85-60: AN ACT PROVIDING THAT FUNDS APPROPRIATED FOR A COVE PROTECTION PROGRAM SHALL NOT LAPSE, AND APPROPRIATING FUNDS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR THE DREDGING OF ALEWIFE COVE BETWEEN WATERFORD AND NEW LONDON

This Special Act provides that funds appropriated for SA 83-12, "An Act Providing for a program to protect the coast," shall continue to be available for the program during the year ending June 30, 1986, instead of lapsing on June 30, 1985. Currently, \$44,138 remains in this account. In addition, this Special Act appropriates \$30,000 to the DEP. These funds are to be used for dredging Alewife Cove, implementing the recommendations of a cove study. **Effective Date: July 1, 1985**

S.A. 85-68: AN ACT APPROPRIATING FUNDS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR THE PURPOSE OF MAINTAINING THE NATURAL DIVERSITY DATA BASE

This Special Act appropriates \$30,000 to the DEP; this funding originates from Special Act 85-30 (1985 acts without appropriations). The funds will be used for a senior environmental analyst who would be responsible for maintaining the natural diversity data base. **Effective Date: July 1, 1985**

S.A. 85-84: AN ACT CONCERNING A REPORT ON PROPOSED GROUNDWATER STRATEGY AND APPROPRIATING FUNDS TO THE DEP FOR A GRANT TO THE LAKE WARAMAUG TASK FORCE

Sections 1 and 2 of this Special Act require the commissioner of the DEP to report to the general assembly by January 15, 1987, on options for improved protection of public ground water supplies. The report must include a map suitable for regulatory purposes, identifying areas needing protection. Mapping will focus on regionally significant aquifers. The remainder of the report will consist of a management strategy.

The mapping program will include: (1) an inventory of existing stream or aquifer data; (2) field work and detailed field mapping; (3) water quality investigations; (4) stream flow and aquifer analysis; and (5) preparation of a regional aquifer map.

The management strategy will consist of: (1) an inventory of land uses on regionally significant aquifers; (2) an evaluation of future water demand and its proximity to resources; (3) a determination of land uses on aquifers that need regulation; and (4) an evaluation of regulatory options for groundwater protection, including consideration of grants to towns to study water supply

needs.

Section 3 of this Special Act appropriates \$75,000 to the DEP for a grant to the Lake Waramaug Task Force to be used to secure federal EPA funds for research on Lake Waramaug. **Effective Date: July 1, 1985**

P.A. 85-131: AN ACT CONCERNING PAYMENTS TO MUNICIPALITIES BY OPERATORS OF HAZARDOUS WASTE DISPOSAL FACILITIES AND HAZARDOUS WASTE ASSESSMENTS

This Public Act amends CGS 22a-128 which requires an owner or operator who modifies an existing hazardous waste facility to pay an assessment. The cost or assessment for a modification shall be based on the volume of waste or the gross receipts that the council determines are attributable to such modification.

This Public Act also amends CGS 22a-132 where any residue resulting from the processing or treatment of hazardous waste at a facility shall not be subject to assessment, provided such residue is derived from hazardous waste received under a manifest. **Effective Date: May 5, 1985**

P.A. 85-315: AN ACT CONCERNING THE RATE TREATMENT OF LANDS PURCHASED, OWNED, OR RETAINED BY WATER COMPANIES FOR FUTURE WATER SUPPLY USE

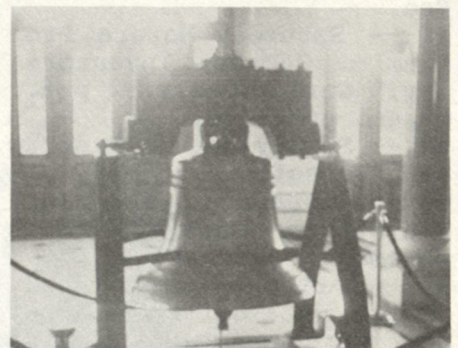
This Public Act requires the Department of Public Utility Control to consider in current rates the cost to a water company of purchasing, owning, or retaining land for future water supply use. The inclusion of such lands in current rates is subject to the following conditions: the land must be in an approved plan or otherwise approved by the Department of Health Services in accordance with statutes and regulations; the land must include an area needed for surface and groundwater

protection, an impoundment area, well site, or other appropriate items such as a tank or filtration plant site; and the DPUC must consider holding the land to be prudent considering cost, availability, and need.

The proceeds from any future sale must be used for the social and economic benefit of consumers. The Public Act applies to water companies regulated by the DPUC (those supplying water to at least 50 consumers, but not including home owners or condominium associations providing water to members). **Effective Date: October 1, 1985**

P.A. 85-450: AN ACT CONCERNING CIVIL PENALTIES FOR VIOLATIONS OF CERTAIN DRINKING WATER LAWS AND REGULATIONS AND THE REGULATION OF THE APPLICATION OF ROAD SALT

This Public Act authorizes the commissioner of health services to impose civil penalties for violations of certain drinking water laws. This Public Act also directs the commissioner of the DEP to adopt regulations establishing standards for the storage and application of road salt for the purpose of minimizing water supply contamination. **Effective Date: October 1, 1985**



A continuation of the legislation from the 1985 General Assembly will appear in next month's Citizens' Bulletin.

The Bulletin Board

Events at White Memorial

The following events are scheduled at the White Memorial Conservation Center in Litchfield:

October:

19 -- Saturday Nature Walk -- "Autumn on Butternut Brook Trail," Helen Sebastian, 2 p.m., museum entrance.

26 -- Saturday Nature Activity -- "Build a Bird Feeder," supervised by Larry Mencuccini, 2 p.m., Activity Shed, Kits -- \$3.00 each.

November:

2 -- Saturday Nature Walk -- "Autumn Birds," Ray Belding, 2 p.m., museum entrance.

8 -- Autumn Nature Study Course -- "Halley's Comet and the Winter Sky," with Richard Bacca, 7:30 p.m., Mott-Van Winkle classroom, Fee.

9 -- Saturday Nature Program -- "Art to Watch Whales By," gallery opening and reception of whale illustrations by Don Sineti, 2 p.m., museum.

15 -- Autumn Nature Study Course -- "Halley's Comet and the Winter Sky," with Richard Bacca, 7:30 p.m., Mott-Van Winkle classroom, Fee.

16 -- Saturday Nature Program -- "Forest Inventorying," Gordon Loery, 2 p.m., museum entrance.

24 -- Sunday Nature Program -- "Forest Inventorying," Gordon Loery, 2 p.m., Mott-Van Winkle classroom, Fee.

December:

6 -- Autumn Nature Study Course -- "Halley's Comet and the Winter Sky," with Richard Bacca, 7:30 p.m., Mott-Van Winkle classroom, Fee.

7 -- Holiday Activities -- "Christmas Fun," ornament making, a visit from Santa, and storyhour/nature walk,

2 p.m., museum.

13 -- Autumn Nature Study Course -- "Halley's Comet and the Winter Sky," with Richard Bacca, 7:30 p.m., Mott-Van Winkle classroom, Fee.

For further information, please write White Memorial Foundation, Inc., Box 368, Litchfield, CT 06759, or phone 567-0857. ■

Events at Audubon Museum

The Connecticut Audubon Society in Fairfield announces the "Saturdays at Birdcraft" program. Pre-registration is not required, but a donation of \$1.00 per person is asked.

November 9: 3 p.m. Wild Mushroom Identification.

To highlight a special November exhibit on the Connecticut mushroom, Birdcraft Curator Lauren Brown will explain the basics of mushroom identification. With some wild species selling for \$100 per pound, you can't afford to miss this! For adults and interested children.

November 16: 3 p.m. Audubon Puppet Show. For all ages.

November 30: 3 p.m. Audubon Puppet Show. For all ages.

December 7: 3 p.m. Take a break from downtown Christmas shopping to see a natural history film. Audubon staff will be available to discuss the film and answer questions. Call 259-0416 or check the paper for details; all ages.

December 28: 3 p.m. Escape the post-holiday blues with another film, also with Audubon staff on hand.



Call 259-0416 or check the paper for details; all ages.

Directions to Birdcraft Museum, 314 Unquowa Road, Fairfield: From I-95, take Exit 21 (Mill Plain Road). Go north on Mill Plain Road a short distance to Unquowa Road. Go right on Unquowa. Birdcraft is the first driveway on your left after you have gone under the Turnpike. Birdcraft is a short walk from downtown Fairfield, next to Tomlinson Junior High School. ■

New Book on Traprock Ridges

West Rock, East Rock, Sleeping Giant, the Hanging Hills, Talcott Mountain: these are some of Connecticut's traprock ridges. A new book by Cara Lee introduces these dramatic landscape features to those who have admired and visited them, but who know little about them. Written in an informal, non-technical style and generously illustrated, this book explains the volcanic origin and geologic history of the ridges and describes the way in which their physical characteristics combine to

create a special habitat for plants and animals. West Rock to the Barndoor Hills: the Traprock Ridges of Connecticut talks about butterflies and ferns, as well as the different microclimates and forest types of the ridges. It also recounts many historical anecdotes and discusses the current land use of these critical habitats. Copies of the book are available for \$5.00 from the Natural Resources Center, Room 555, 165 Capitol Avenue, Hartford, CT 06106. Mail orders cost an additional \$2.00 for postage and handling. Connecticut residents must add \$.38 per book (7.5%) state sales tax. For further information call the Natural Resources Center at (203) 566-7719.

The writing of West Rock to the Barndoor Hills was jointly sponsored by the Yale School of Forestry, The Nature Conservancy, and the Connecticut Department of Environmental Protection. ■

Seedling Packets Available

State Forester Robert L. Garrepy announced that tree and shrub seedlings from the State Forest Nursery can now be ordered for the 1986 spring planting season. Connecticut landowners may purchase the seedlings for Christmas tree plantings, reforestation, wildlife habitat, or other valid conservation purposes.

Three seedling programs are available. The first is the "Buffer Bunch Packet," which consists of 20 tree seedlings (10 white pine and 10 Norway spruce) and 30 shrub seedlings (usually 15 silky dogwood

and 15 autumn olive). The evergreens provide cover for birds and small animals and the shrubs provide seeds or berries for food. There is no minimum planting acreage requirement, and the seedlings are ideally suited to suburban house lots. The Buffer Bunch is shipped directly to the landowner by United Parcel Service in late March or early April, and its cost is \$15.00. Checks should be made out to "DEP -- Nursery."

The second program, the "Wildlife and Soil Conservation Seedling Packet," consists of 75 tree seedlings (50 white pine and 25 Norway spruce) and 75 shrub seedlings (25 autumn olive, 25 highbush cranberry and 25 silky dogwood). The price is \$27.00, including UPS delivery. At least one-quarter acre of plantable land is needed to qualify for the 150 seedlings provided under this program.

The third option, "Forest Planting Stock," is available to Connecticut landowners with larger planting areas, who intend to establish a forest plantation, develop a commercial

Christmas tree planting, or who wish to augment existing forest stands on one or more acres (not including house lot). Forest Planting Stock orders for conifer species must be in multiples of 250, and the price is \$70.00 per thousand trees. The landowner will be notified by postcard when the order may be picked up.

Orders for Wildlife and Soil Conservation Packets and Forest Planting Stock require DEP approval. Two restrictions are placed on all orders: They cannot be resold with roots attached or be used for ornamental planting.

Write or call one of the following offices for an order form:

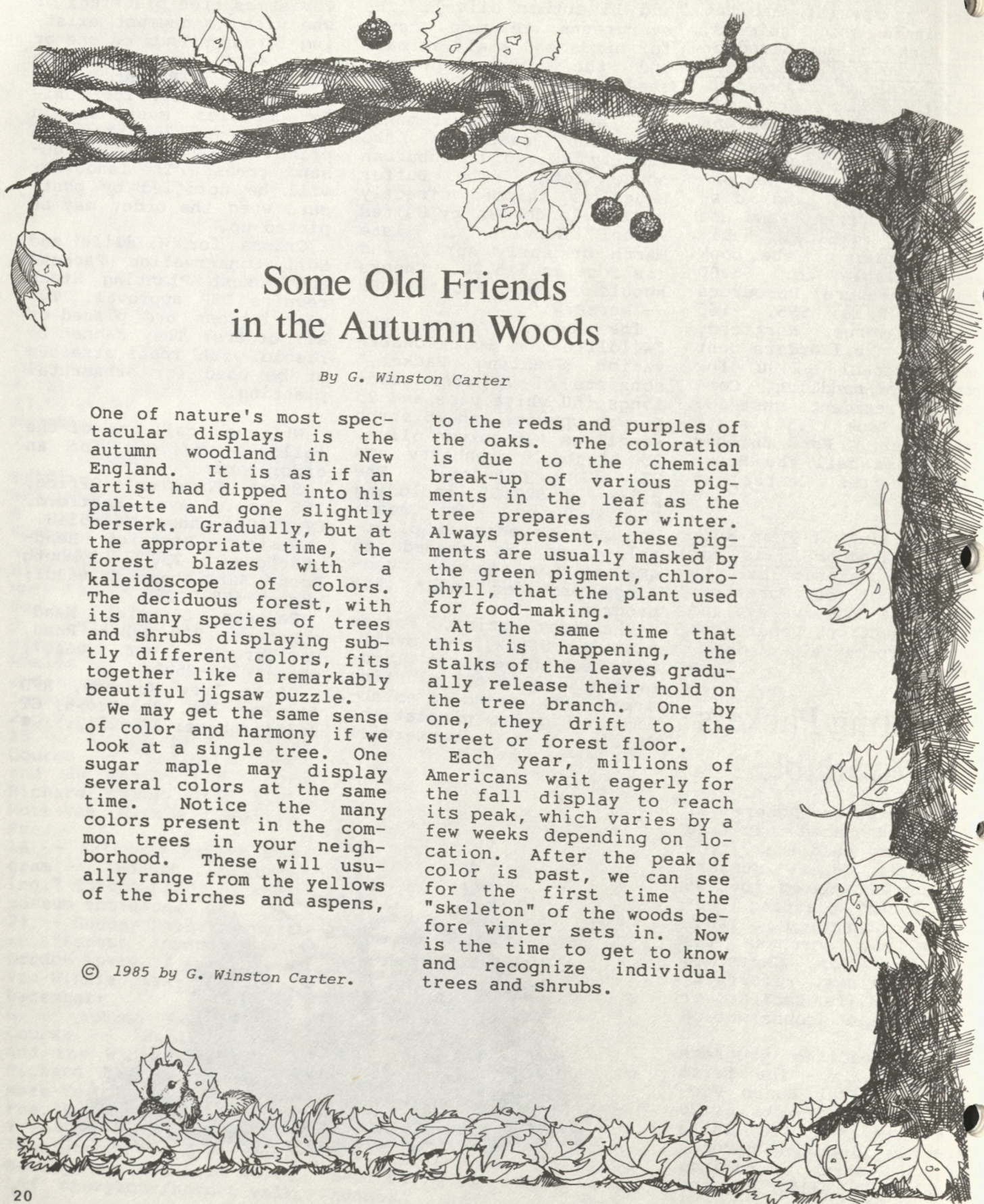
State Forester's Office, 165 Capitol Ave., Hartford, CT 06106; phone: 566-5348.

Western District Headquarters, 230 Plymouth Road, Harwinton, CT 06791; phone: 485-0226.

Eastern District Headquarters, 209 Hebron Road, Marlborough, CT 06447; phone: 295-9523

State Tree Nursery, RFD #1, Box 23A, Voluntown, CT 06384; phone: 376-2513. ■





Some Old Friends in the Autumn Woods

By G. Winston Carter

One of nature's most spectacular displays is the autumn woodland in New England. It is as if an artist had dipped into his palette and gone slightly berserk. Gradually, but at the appropriate time, the forest blazes with a kaleidoscope of colors. The deciduous forest, with its many species of trees and shrubs displaying subtly different colors, fits together like a remarkably beautiful jigsaw puzzle.

We may get the same sense of color and harmony if we look at a single tree. One sugar maple may display several colors at the same time. Notice the many colors present in the common trees in your neighborhood. These will usually range from the yellows of the birches and aspens,

to the reds and purples of the oaks. The coloration is due to the chemical break-up of various pigments in the leaf as the tree prepares for winter. Always present, these pigments are usually masked by the green pigment, chlorophyll, that the plant used for food-making.

At the same time that this is happening, the stalks of the leaves gradually release their hold on the tree branch. One by one, they drift to the street or forest floor.

Each year, millions of Americans wait eagerly for the fall display to reach its peak, which varies by a few weeks depending on location. After the peak of color is past, we can see for the first time the "skeleton" of the woods before winter sets in. Now is the time to get to know and recognize individual trees and shrubs.

© 1985 by G. Winston Carter.

As the leaves fall, winter buds and tree bark, as well as the characteristic silhouettes of the trees, become more apparent. These characteristics can also be observed in winter, but often the snow obscures details that stand out so vividly in autumn. Now, berries, acorns, and fruit of every kind stand out -- even the flowers of a late-blooming witch hazel can be seen.

A walk through the woods is a special experience in late autumn. The leaves have by now become a carpet which crackles underfoot. The branches of the trees are revealed, stretching upward and outward in an amazing variety of patterns against a somber sky.

The Faces of Old Friends

Donald Peattie, in his delightful book, The Natural History of Trees of Eastern and Central North America, has this to say about tree study: "The first reward of tree study -- but one that lasts to the end of your days -- is that as you walk abroad, follow a rushing stream, climb a hill, or sit on a rock to admire the view, the trees stand forth proclaiming their names to you. Though at first you may fix their identity with more or less conscious effort, the easy-to-know species soon become like faces of your friends, known without thought and bringing each a host of associations."

I consider myself fortunate to live near a nature center, and that gives me a chance to enjoy tree and shrub study the year round. There is a hill to climb, a view, and a running stream. A variety of wildlife habitats are

available for study -- an old field returning to woodland, a young forest of gray birch, a wetland area, and a hillside of oaks and hickories. All of these habitats lie along a loop trail less than two miles long. Let's explore this trail together.

Along the Trail

Perhaps the most spectacular discovery that we will make on our walk together

Northern Red Oak (*Quercus rubra*)

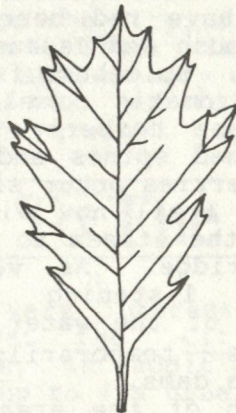


Illustration: Rosemary Gutbrod

is the late-flowering witch hazel with its ribbon-like blossoms. After other trees and shrubs have long-since flowered and produced fruit, witch hazel produces a bloom, "winterbloom," because sometimes it waits for snow before it flowers. The explosive fruit does not appear until a year later.

We follow the trail through a thick stand of mountain laurel with its waxy evergreen leaves.

This brings us to the foot of the hillside. Here, we pause on our walk to take a look at tree silhouettes, winter buds, and barks of trees. Notice the muscular bark of the American hornbeam, the "ski-trail" characteristics of red oak bark, the tattered bark of shagbark hickory, and the alligator-patterned bark of flowering dogwood. The branches of flowering dogwood are unusually picturesque; the dome-shaped winter flower buds stand out at the ends of the branches which curve gently toward the sky.

On the hillside, the dominant trees are the oaks and hickories, with the American hornbeam and the flowering dogwood playing supporting roles as understory trees. The fullness of the prickly evergreen, the common juniper, contrasts sharply with the bare branches of the broadleaf trees. The juniper's blue berries are aromatic and used for flavoring gin.

The path up the hillside is becoming covered with leaves. Acorns, hidden beneath, feel like slippery ball bearings as we make our ascent.

The Top of Pigeon Hill

At the top of the hill, Pigeon Hill, we stop. It's good to be alive here, surrounded by so much beauty. From this vantage point, we see that many oaks still have leaves and one oak tree has a squirrel nest near the top. There is the zee! zee! zee! of a golden crowned kinglet, a tiny bird often found in the company of black-capped chickadees and tufted titmice, and the occasional plop! of another acorn as it hits the ground.

Picking up a handful of acorns, we can see that

there is a great variety of shapes and sizes. The red oak acorn is larger than the other species and has a shallow cup. It is bitter to the taste because it is full of tannin. Two years are required for the red oak acorn to develop. Some species, like the white oak, mature in one year. The black oak acorn is smaller than that of red oak, and the cup is shingled, covering more of the acorn. The third species growing on this hillside is the less-common scarlet oak. Its acorn often has concentric rings around the top. This is best seen with a hand lens and is not always present.

The Trail Back

The trail leading back to the nature center offers a good opportunity to study several species of birch. The yellow birch, with its silver to yellow bark, has a tendency to curl. It is sometimes called curly birch. Black birch has bark that is dark gray to black and very tight until it starts to get old. At this time it reveals numerous cracks. Both black and yellow birch have twigs that smell like wintergreen when broken. Black birch was once a major source of oil of wintergreen, which is now produced synthetically. Gray birch has tight, grayish to white bark, with conspicuous black chevron-like marks below each branch. This feature is missing in white birch, which is less common here. It is a more northern species which has white bark that peels easier than gray birch.

Identifying the Shrubs

There are some interesting shrubs that grow along this portion of the trail, but

their identification in late fall and winter can be difficult. If a few leaves remain, however, or if fruit are present, identification is easier. Arrowwood, a viburnum, can be identified by a few isolated bronze or red serrated leaves and by its round or oval bluish fruit with deeply-grooved seeds. Winterberry, a common deciduous holly, can usually be identified by its spectacular red fruit which can be seen more dramatically after the leaves are shed. The fruit, which are attached directly to the stem, are usually in clusters, but some may occur singly.

Two other common shrubs that have red berries are spicebush and Japanese barberry. Spicebush fruit has an aromatic smell, and Japanese barberry has unbranched spines and all of its berries occur singly.

The trail now winds along the stream to a wooden bridge. As we stand here, listening to the sound of the water, fallen leaves temporarily form little dams.

Much of the area around us is wetland. It has swamp red maple, with its pale gray bark, and spongy sphagnum moss, now bleached nearly white. In late spring and summer, this area is a virtual jungle of cinnamon ferns, all lacy brown now, hugging the ground in twisting patterns.

Returning now to the nature center, we pass by a beautiful stand of autumn olive with its silver-gray leaves still present. Its branches are heavy with hundreds of reddish, berry-like fruit. These shrubs, or small trees, were planted by someone with a knowledge of bird diets, as we can see and hear.

What makes walking in a woods a unique experience is the variety of habitats so close to each other. Habitats differ in the condition of the soil, amount of moisture, degree of slope, amount of sunlight, and associated plants. We have only experienced a few of the habitats found in this particular woods. Because every woods is special and unique, we can always expect excitement when entering a forest environment for the first time.



Five towers were built on the property now known as Talcott Mountain State Park, dating from 1810 to 1911.

Four U.S. Presidents -- James Garfield, Chester A. Arthur, Dwight Eisenhower, and Ronald Reagan -- all have visited the Heublein Tower at Talcott Mountain State Park.

There are 88 state parks (total acreage 29,045) in Connecticut.

There are 32 state forests in Connecticut, with a total of 138,029 acres.

The Night Sky

By Francine Jackson

Every season, there seems to be one single distinctive stellar shape which dominates the night sky. In autumn, this shape is a large square, prominent in the southern sky. This square is, in actuality, the body of Pegasus, the flying horse, the beautiful, winged animal who assisted Perseus in his rescue of the princess Andromeda.

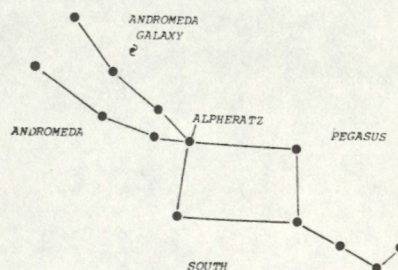
The lower right star of the square is Pegasus' shoulder; his neck and head arch down and to the right, or south, of the square. From the upper right star his two front legs extend, some say, in gallop position. You may be noticing that Pegasus is positioned in the sky upside-down. Also, according to tradition, only the front half

of his body can be seen. In other words, the constellation Pegasus is an only half-there, upside-down flying horse. No wonder he's sometimes a little hard to picture!

The upper left-hand star, Alpheratz, even though it is one corner of the square, belongs, not to Pegasus, but to the beautiful Andromeda. Using Alpheratz as a starting point, Andromeda becomes a skinny, flowing letter A, extending from Pegasus' stomach, moving to the left and then up from the square.

According to legend, Andromeda was supposed to have been wearing a diamond ring. Although not easily seen from the city, a fuzzy patch of light in the country sky clearly shows, not one star but billions of stars grouped together

in a galaxy. A galaxy is a collection of billions of stars all moving relative to each other. This galaxy, called the Great Andromeda Galaxy, is made up of over 400,000,000,000 stars. Lying at a distance of 2 1/4 million light years (a light year is the distance light travels in one year -- approximately six trillion miles), the Andromeda Galaxy is the farthest known object that can be seen with the naked eye. ■



Letters To The Editor

My whole family enjoys the Bulletin, each one for different articles -- state parks, hiking trails, fishing lakes and ponds, etc. -- and as nature lovers, we enjoy it every way.

A.E. Charbonneau
Wolcott

I was very interested to see that the Citizens' Bulletin, in addition to living up to its usual high standards, is also becoming more immediately pertinent. I very much enjoyed the articles on the DEP's plan for the year 2000 and on new environmental legislation.

John Stradler
West Haven

The publication is very informative and enjoyable to read. I like the "new look" to the departments this year. The Bulletin brings Connecticut to me every month, even though I now live in Pennsylvania. Keep up the good work.

Diane Karasevicz
Port Matilda, Pennsylvania

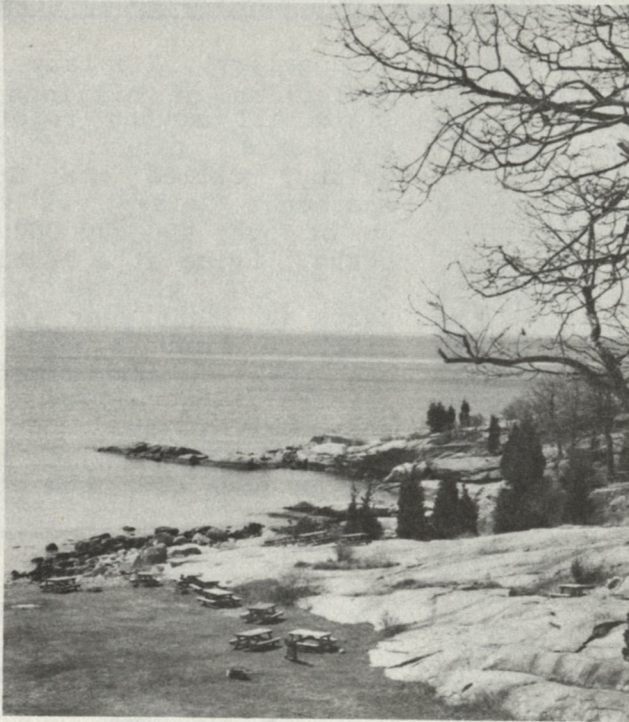
The Citizens' Bulletin welcomes letters from readers. Letters should be accompanied by name, address, and phone number. Let us hear from you.

Endnote

"Stalking Wolf said that if we took our knives and camped in Hell for a week alone, we would never be afraid of anything again."

The Tracker
Tom Brown, Jr.
Berkeley Publishing Co.

"The Connecticut Department of Environmental Protection in an equal opportunity agency that provides services, facilities, and employment opportunities without regard to race, color, religion, age, sex, physical or mental disability, national origin, ancestry, marital status, or political beliefs."



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